Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-43 (canceled)

Claim 44 (new): A single-step method for producing antigen-loaded, antigen-presenting cells comprising the steps of:

maturing monocytes ex vivo with a tumor necrosis factor alpha and a granulocyte-macrophage colony stimulating factor in the presence of a pre-processed antigenic material to form mature antigen-presenting cells.

Claim 45 (new): The method of claim 44, wherein the antigen loaded antigen-presenting cells are produced in less than four days.

Claim 46 (new): The method of claim 44, wherein the antigenic material is selected from the group consisting of antigenic peptides, peptide mimetics, proteins, polyproteins, immune complexes, whole dying cell bodies, dying cell body fragments, viral vectors and liposomes.

Claim 47 (new): The method of claim 44, wherein the antigenic material comprises a heat-treated antigenic material.

Claim 48 (new): The method of claim 44, further comprising separating the antigen-loaded, antigen-presenting cells into fractions containing one or more subsets selected from the group consisting of cells with surface markers ($CD1a^+$ $CD207^+$); cells with surface markers ($CD1a^+$ $CD207^-$); cells with surface markers ($CD1a^-CD14^-$); and cells with surface markers ($CD14^+$ $CD1a^-$ $CD209^+$) and combinations thereof.

Claim 49 (new): The method of claim 44, wherein the antigen-loaded, antigen-presenting cells are matured in the presence of a T cell that is $CD4^+$, $CD8^+$ or a combination thereof.

Claim 50 (new): The method of claim 44, wherein the antigenic material comprises an insoluble

antigenic cell fraction, a partially soluble cell fraction, whole dying cell bodies, dying cell body fragments or combinations thereof.

Claim 51 (new): A vaccine comprising antigen-loaded, antigen-presenting, activated monocytes loaded ex vivo with an antigenic material in the presence of an amount of a tumor necrosis factor alpha and a granulocyte-macrophage colony stimulating factor sufficient to activate the monocytes in less than four days.

Claim 52 (new): The method of claim 51, wherein the antigenic material is selected from the group consisting of antigenic peptides, peptide mimetics, proteins, polyproteins, immune complexes, cell fragments, cell membranes, whole dying cell bodies, dying cell body fragments, virally infected cells, viral vectors and liposomes.

Claim 53 (new): The method of claim 51, wherein the antigenic material comprises a heat treated cellular antigenic material, whole dying cell bodies, dying cell body fragments or combinations thereof.

Claim 54 (new): A vaccine comprising monocyte-derived antigen loaded antigen-presenting cells, wherein the antigen-presenting cells are selected from Langerhans cells, interstitial dendritic cells and combinations thereof.

Claim 55 (new): A vaccine comprising monocyte-derived, antigen loaded, antigen-presenting cells, wherein the antigen-presenting cells comprise two or more subsets selected from the group consisting of cells with surface markers (CD1a+ CD207+); cells with surface markers (CD1a+ CD207-); cells with surface markers (CD1a-CD14-); and cells with surface markers (CD14+ CD1a- CD209+) and combinations thereof.

Claim 56 (new): A method of inducing a tumor-specific immune response in a tumor-bearing patient comprising the step of administering to the patient a vaccine comprising an antigen-loaded, antigen-presenting monocyte matured ex vivo with an amount of a tumor necrosis factor alpha, a granulocyte-macrophage colony stimulating factor and a heat-treated, tumor antigen sufficient to mature the monocytes in less than four days.

Claim 57 (new): The method of claim 56, wherein the antigen is selected from the group

consisting of a tumor-specific antigen, whole dying cell bodies, dying cell body fragments or combinations thereof.

Claim 58 (new): The method of claim 56, wherein the monocytes are matured in the presence of T cells that are $CD4^+$, $CD8^+$ or a combination thereof.

Claim 59 (new): A method of inducing tumor specific responses in a tumor-bearing patient comprising the steps of:

maturing antigen-loaded, antigen-presenting patient monocytes with antigenic material comprising at least one tumor antigen, in the presence of a tumor necrosis factor alpha, and a granulocyte-macrophage colony stimulating factor;

coculturing the loaded antigen-presenting cells with T cell precursors isolated from the patient to form mature cytotoxic cells; and

administering the mature cytotoxic cells to the patient, wherein the mature T cells have cytotoxic activity against the tumor antigen.

Claim 60 (new): The method of claim 59, wherein the antigen-loaded, antigen-presenting cells are made in less than four days.

Claim 61 (new): The method of claim 59, wherein the antigenic material is heat treated and comprises a soluble antigenic material, whole dying cell bodies, dying cell body fragments or combinations thereof.

Claim 62 (new): The method of claim 59, wherein T cells are $CD4^+$, $CD8^+$ or a combination thereof.

Claim 63 (new): A method of inducing an immune response in a patient comprising the step of administering to a patient a vaccine comprising monocytes that are matured ex vivo in the presence of a T cell with a heat-treated, antigenic material in the presence of a tumor necrosis factor alpha and a granulocyte-macrophage colony stimulating factor.

Claim 64 (new): The method of claim 63, wherein the monocytes are made in less than four

days.

Claim 65 (new): The method of claim 63, wherein the heat-treated, antigenic material is selected from soluble antigenic material, whole dying cell bodies, dying cell body fragments or combinations thereof.

Claim 66 (new): The method of claim 63, wherein T cells are $CD4^+$, $CD8^+$ or a combination thereof.

Claim 67 (new): A method for mounting an immune response in a host mediated by cytotoxic T cells comprising the steps of:

maturing monocytes ex vivo with a tumor necrosis factor alpha and a granulocyte-macrophage colony stimulating factor in the presence of an antigen; and

exposing the monocytes to naïve T cells to form antigen-specific, mature T cells.

Claim 68 (new): The method of claim 67, wherein the monocytes are CD1a+ CD207+; CD1a+ CD207-; CD1a-CD14-; CD14+ CD1a- CD209+ and combinations thereof.

Claim 69 (new): The method of claim 67, wherein the antigen comprises insoluble antigenic material, tumor cells, whole dying cell bodies, dying cell body fragments or combinations thereof.

Claim 70 (new): The method of claim 67, wherein cytotoxic cells are $CD4^+$, $CD8^+$ or a combination thereof.

Claim 71 (new): A method for modifying an immune response in a patient comprising the steps of:

maturing monocytes ex vivo with an antigen comprising at least one antigen, a tumor necrosis factor alpha, and a granulocyte-macrophage colony stimulating factor; and

administering the monocytes to the patient, wherein the patient's cells are modulated to modulate an immune response against the antigen.

Claim 72 (new): A method for producing an antigen-presenting monocyte comprising the steps of:

activating antigen presenting cells in the presence of an antigenic material, a tumor necrosis factor alpha, and a granulocyte-macrophage colony stimulating factor to form antigen-presenting, matured monocytes; and

isolating from the antigen loaded antigen-presenting cells into two or more subsets, wherein each subset is capable of eliciting a distinct T cell response.